

REMARKS

Claims 1-18 are all the claims pending in the application. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Claim Rejections - 35 U.S.C. § 103

- The Examiner has rejected claims 1, 9, 17, and 18, under 35 U.S.C. § 103(a) as being unpatentable over JP-1122753 (Tanaka) in view of JP-2000-119673 (Iso et al.) and U.S. Patent No. 5, 655,844 (Takano). Applicants traverse this rejection because the cited references fail to teach or suggest all of the claim limitations.

First, Applicants' remarks as set forth in the Amendments filed on September 22, 2003, June 8, 2004, and April 8, 2005, are still pertinent and, therefore, are incorporated herein by reference.

Second, with respect to claims 17 and 18, the Examiner's interpretation of Takano is mistaken for at least the following two reasons:

(i) Takano does not teach or suggest a gap wherein the contact area between the raceway surface and the inner ring would "inherently" shift as asserted by the Examiner.¹ Instead, Takano discloses that the axial gap in the ball bearing is "set at 0.010 mm".² As can be seen from Applicants' Fig. 4, a gap of 0.01 mm does not provide any shift of the retainer (rolling element) and, therefore, there would be no shift in the contact area.

In contrast, as set forth in claims 17 and 18, the positive value of the radial clearance is set such that the contact position of the rolling element with respect to the raceway surface of the inner ring shifts/is shiftable when the relative rotation between inner and outer rings is zero.

¹ June 10, 2005 Office Action at page 3, lines 17-20.

² Takano at col. 7, lines 35-42.

With reference to Fig. 4, the effective clearance must be greater than 0.01 in order to achieve such a shifting as set forth in the claims.

In light of the above, even assuming that one of ordinary skill in the art were motivated to combine the references as suggested by the Examiner, any such combination would have a bearing gap of 0.01 mm and, therefore, would not provide any shift in the contact position as set forth in Applicants' claims.

(ii) The Examiner's "Response to Arguments", including his interpretation of Takano therein, is mistaken. The Examiner asserts that Takano discloses—in col. 2, lines 25-35—that the contact position of the rolling element with respect to the raceway surface of the inner ring is shiftable.³ However, the cited portion of Takano merely relates to "... the contact pressure on the rolling faces of the balls and on the inner and outer raceways of the respective ball bearings is smaller than that for the case of a preload applied, ..." This recitation has nothing to do with whether a contact area is shiftable as claimed.

For at least any of the forgoing reasons, this rejection is in error and should be withdrawn.

- The Examiner rejected claims 2 and 10 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of US Patent 4,371,220 to Brucher (hereinafter Brucher). Applicants respectfully traverse this rejection for the following reasons.

As noted previously, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper and is deficient. Brucher does not teach anything that would make the Examiner's attempted combination proper or sufficient. Accordingly, this rejection is believed to be in error and should be withdrawn.

- The Examiner rejected claims 3 and 11 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of US Patent 4,629,337 to Teramachi (hereinafter Teramachi). Applicants respectfully traverse this rejection for the following reasons.

³ Office Action at page 11, 2nd paragraph.

As noted previously, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper and deficient. Teramachi does not teach anything that would make the Examiner's attempted combination proper or sufficient. Accordingly, this rejection is believed to be in error and should be withdrawn.

- The Examiner rejected claims 4 and 12 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of Brucher and Teramachi. Applicants respectfully traverse this rejection for the following reasons.

As noted previously, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper and is deficient. Brucher and Teramachi do not teach anything that would make the Examiner's attempted combination proper or sufficient. Accordingly, this rejection is believed to be in error and should be withdrawn.

- The Examiner rejected claims 5 and 13 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of US Patent 4,465,195 to Dreschmann et al. (hereinafter Dreschmann). Applicants respectfully traverse this rejection for the following reasons.

As noted previously, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper and is deficient. Dreschmann does not teach anything that would make the Examiner's attempted combination proper or sufficient. Accordingly, this rejection is believed to be in error and should be withdrawn.

- The Examiner rejected claims 6 and 14 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of Brucher and Dreschmann. Applicants respectfully traverse this rejection for the following reasons.

As noted previously, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper and is deficient. Brucher and Dreschmann do not teach anything that would make the Examiner's attempted combination proper or sufficient. Accordingly, this rejection is believed to be in error and should be withdrawn.

- The Examiner rejected claims 7 and 15 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of Teramachi and Dreschmann. Applicants respectfully traverse this rejection for the following reasons.

As noted previously, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper and is deficient. Teramachi and Dreschmann do not teach anything that would make the Examiner's attempted combination proper or sufficient. Accordingly, this rejection is believed to be in error and should be withdrawn.

- The Examiner rejected claims 8 and 16 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of Brucher, Teramachi, and Dreschmann. Applicants respectfully traverse this rejection for the following reasons.

As noted previously, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper and is deficient. Brucher, Teramachi and Dreschmann do not teach anything that would make the Examiner's attempted combination proper or sufficient. Accordingly, this rejection is believed to be in error and should be withdrawn.

Conclusion

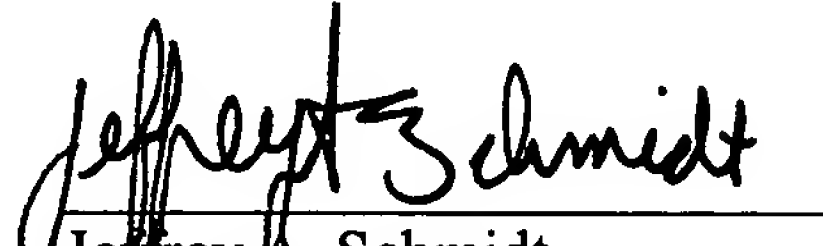
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Request for Reconsideration under 37 C.F.R. § 1.116
U.S. Appln No. 09/925,020

Atty Dkt No. Q65831

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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